

theorist and experiments of Rytelwein, Prony, Dubuat, Genleys, Young, Smeaton, Leslie, and others, and latterly by Hawksey, Beardmore, and the Metropolitan Commissioners of Sewers, and all with pure water through pipes, &c.; but Mr. Ryde must not tell me that highly concentrated sewage, containing from twenty to thirty per cent. of solid matter, will flow as freely and without obstruction through pipes or sewers as pure water, because my experience has long convinced me to the contrary. This simple fact, it appears, is alluded to by Mr. Hale in his communication to the *Mechanics' Magazine*, wherein he says, "The conclusion arrived at is, that the requisite sizes of the drains can be determined near enough for practical purposes, as an important circumstance has to be considered in providing for the deposition of solid matter, which disadvantageously alters the form of the aqueduct, and contracts the waterway."

He further says, "It should be mentioned, that in the case of the 6-inch pipe which discharged 75 cubic feet per minute, the length being 100 feet, the lateral streams had a velocity given to them of a few feet per second, although he does not mention what that velocity was, which would have a sensible effect on the volume of water discharged; and the junctions," he says (five in number), "were placed at an angle of 35 degrees with the main line of pipe."

I do not think that experiments that were conducted under such arbitrary rules and regulations can be considered very trustworthy as data, when we take into consideration the ever-varying general principles and systems of town drainage.

BAYLIS.

WIDENING OF CHANCERY LANE.

MR. TAYLOR, of Chancery-lane, to whom the public are chiefly indebted for a determined endeavour to improve the opening, has published in form of a pamphlet what has been recently written on this subject in the daily papers and *THE BUILDER*. We have had a view of the present state of things at this narrow bottle neck, as the *Daily News* has graphically described it; and certainly there is nothing more wonderful in the disproportionate issues from a conjuror's bottle, than the disengagement of cabs and omnibuses through this narrow strait. The present opportunity of abating such a nuisance could not have been more favourable, though it had been purchased expressly for the purpose at an expense of 30,000*l.* or 40,000*l.*, as such an opening will certainly cost hereafter, if the present opportunity be not seized on, as it ought to be, in order to effect the same improvement now at less than a twentieth part of that cost. It has been urged that the west side of the lane is that which ought to be widened, and not the east, the corner of which is at present cleared for building; but besides the evident fact that a widening of both sides is desirable, there is a good reason why the east side in particular ought to be widened and rounded off. It will be found that the main bulk of the traffic is in omnibuses, cabs, &c., the usual route of which tends all to the east in issuing from the lane into Holborn, Gray's-inn-lane, &c.; and vice versa, it is chiefly those vehicles just before chocked up in Middle-row, Holborn, which press into the lane on the east side. Here, then, there is urgent reason to widen and round off the street at the very spot now cleared; and as for the additional couple of houses, if such rubbish merit so respectable a title, that would require also to be set back or refronted, they are already in a perfectly ruinous state, as officially reported on, and one of them has a shore as an ornamental pillar in the middle of its one pair front, besides two or three more behind. Mr. Taylor has lately addressed the members of the Society of Lincoln's-inn individually, and Prince Albert, as their chief, upon the subject, but it will not be till the 2nd proximo that an official opportunity occurs for its consideration. It is earnestly to be hoped that it will not be then too late. We willingly paid a tribute to Lord Radnor's liberality in giving up a small area at the back of one of the houses; but we regret to find it said that "He refused to treat with the Commissioners for the ground previous to the lease being renewed, and until he had secured his im-

proved ground-rent, and increased the value of the ground in the lessee's estimation, and to the public 500*l.* to 2,500*l.*, and perpetuated a nuisance which it was in his power to remove without injuring himself or his successors, for the Paving Board would cheerfully have paid full value for the ground, so that instead of a boon we have to thank him for a bone of contention." It is only eight feet of ground in front of a single tenement, tapering off from one or two more, that is wanted to convert a single-wheel way into a double one throughout the whole of the street, and although the principal lessee has been advised to ask 2,000*l.* for the whole, or 850*l.* for the half of it, doubtless the sum offered by the paving commissioners, namely, 750*l.* for the whole, would be found to go great way towards the sum that would ultimately be accepted. It will be a lasting disgrace to more than one party if so pitiful a sum by comparison with such a benefit should not be realized without more ado. A week of further delay and it may be too late, even with increased resources. Why Lord Radnor should not do it all himself for the mere self-interested improvement of his own valuable property in this lane, let alone the public benefit, it is hard to see; an enlightened self-interest would certainly prompt such an issue."

MEMS. PROVINCIAL.

PLANS are about to be got for a market at Clifton.—The Birmingham Gas and Coke Company, and the Birmingham and Staffordshire Gas Company, have announced reductions of price in their gas, the new prices, from January next, to range from 5*s.* 6*d.* to 3*s.* 6*d.* with five per cent. discount for prompt payment. Since the previous reductions there has been "an increasing consumption of gas," as acknowledged by both companies.—The Salford guardians propose to build a new workhouse.—The ratepayers of the township of Pendleton, Manchester, are memorialising the magistrates in favour of the erection of a new bridge over the Irwell, in place of the present suspension-bridge.—A chimney at Stockport, 85 yards in height, was recently struck by lightning, and one of the angles from the top downwards, about 20 to 25 yards, "cut off as with a chisel."—The Liverpool United Gas Company have had a spacious new building for offices, workshops, &c., erected by Messrs. Haigh, of London-road. It is in the Venetian style, and presents in Newington a frontage of 108 feet. This facade is divided into two heights, the lower portion being rusticated work at the ends, and the centre part forming an arcade of seven divisions, reeding nearly six feet. The arcade pilasters are oblong on the plan, sunk on the flanks, having moulded bases, capitals, archivolts, and key-stones. The centre, slightly projecting, is carried up two stories in height, and receives the masonry of the upper windows, with columns, pilasters, entablature, &c. The block of the building is finished with a stone cornice. The three centre divisions of the arcade form the entrance into the interior by a flight of steps continued in front of these divisions. This approach, and the area in front, are protected by a dwarf fence wall of stone, perforated for the admission of light to the basement, and completed with ornamental iron balustrades. Stone pillars are introduced into this fence wall for lamp supports.—A movement is in progress for the formation of a new market at Hulme.—Both of the Leeds gas companies intend reducing the price of their gas from 5*s.* to 4*s.* 6*d.*—At Darlington, the bridge across the Skerne, leading to the new park, is now finished, and the committee have offered a premium for the best design for laying out the grounds, about 20 acres in extent. The baths, too, are making rapid progress, the contracts for the remainder of the works having been let.—The Small Tenements Rating Bill, says the *Gateshead Observer*, has raised the valuation of the Monkwearmouth Shore from 8,477*l.* to 15,344*l.*, and reduced the rate from 1*s.* in the pound to 8*d.*—A school for boys and girls has been

completed at Laver, Boston, Essex, at the sole expense of the Rev. Robert Wooding Sutton, the rector, under the direction of Mr. Watson, architect; together with a master's and mason's house, play-shed, &c. The style is that of Tudor Domestic architecture. The school has an open timber roof, stained and varnished; the walls of Portland cement, jointed; and it is heated by the pyro-pneumatic stove-grate. A sufficient space of ground is attached and planted, with space for a gymnasium, enclosed in front by an open ornamental wall, piers, &c.

THE IRON TRADE.

THE beginning of the end appears to be already in advent. "Just now," says *Aris's Gazette*, "there are no prices: it is useless any longer to conceal the fact—the iron trade is in a most deplorable state—the work of ruin has been going on for months to an extent not hitherto dreamt of; and, unless something speedily be done, or some change take place, the perilous condition of some most respectable concerns is such, as to place them beyond redemption. In this district the make for months past has been comparatively trifling, and the only hope for it now is to put a very large additional number of furnaces out of blast: the extent to which this will spread misery and pauperism amongst the unemployed workmen it is almost impossible to estimate. The Welsh masters with an on-producing until a sterner power compel them to hold their hand. The mischief already done in Scotland is so great, that the final catastrophe cannot be very far distant: the production goes on with almost unmeasured pace; the price of the commodity has been as continually declining; and the amount of the overdrawn banking accounts is said to be enormous. A very general report is current that a single house in Scotland is in the hands of trustees for liabilities to the extent of no less than 600,000*l.* With such a type of the desperate condition of the iron trade, it is scarcely possible to predict what disasters are at hand." Thus it ever is: the Staffordshire masters would have the Welsh and the Scotch to give up the ruinous contest; lately the Welsh wished the Staffordshire to do so. Every one looks to his neighbours as the cause of all the mischief. But it is a fact, seemingly, that a mad increase of activity is being displayed in South Wales: works closed for four years are being reopened; increased numbers of men have already been employed, surveys undertaken, tramways formed, fresh levels opened, pits aired and ventilated. As for the last of these operations, there need be no anxiety: there will be plenty of time to ventilate and air the pits: tramways out of all this mess are much more necessary: so are rational surveys of the present and prospective state of things, and levelling of a very fresh and new description indeed. The bond of brotherhood by which the masters professed to be united at quarterly meeting time has been also not assuaging in the general dissolution, or rather the nominal price system is now fully and freely acknowledged to have been but a rope of sand. "For a considerable time past," says the *Birmingham Journal*, "the impression has been very general that the official declaration of prices made at the quarterly meetings of the ironmasters was a mere formality, not binding upon those consenting to these rates, but a convenient maximum from which discounts might be made according to the necessities of the seller, or any other modifying circumstance. . . . The absence of any definite result at the late meetings, and the issue of a circular by Messrs. Thorneycroft, on Monday last, have completely broken the prestige which attached to formal agreements about prices." That prestige was broken long ago. At a time when the quarterly dicta were quoted by every one as unquestionable authority, and when the masters were in the height of their imperious prosperity, we steadily exposed the hollow humbug of the system, and we may modestly claim the merit of having alone broken the prestige of such "nominal" prices. But latterly we ceased to war with those who came to rank with the unfortunate: our purpose was accomplished when the overweening conceit of a most "rampant" imperium in imperio was taken out of it. It is now rumoured that the reduction announced by Messrs. Thorneycroft, of 10*s.* a-ton, with 10*s.* additional on commission, "is the

* A circumstance which has also transpired, namely, that a former paving board had been negotiated with by Lord Radnor for a portion of the ground, but could not determine the application on account of the expense, would seem to require notice; but it is very little, if at all, affects the force of what we have now said.